Whi

	Application No.	Applicant(s)
Notice of Allowability	10/043,722	GILMORE, ROBERT P.
	Examiner	Art Unit
	SIMON D NGUYEN	2685
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.  1. All biside of a claim (s) is/are 2-36 (renumbered 1-35).  3. The drawings filed on are accepted by the Examiner.  4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) All bisides of the priority documents have been received.		
2. Certified copies of the priority documents have been received in Application No		
2.  Certified copies of the priority documents have been received in Application No  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.  6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  (a) including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).  7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.		
Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit of Biological Material  SIMON NGUYEN  PRIMARY EXAMINER  SIMON NGUYEN	6. ☐ Interview Summary Paper No./Mail Dat 7. ☑ Examiner's Amendn 8. ☑ Examiner's Stateme 9. ☐ Other	te

Application/Control Number: 10/043,722

Art Unit: 2685

## **DETAILED ACTION**

## **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: Claim 20, "the method of claim 21," has been changed to ...the method of claim 17,...

## **Drawings**

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the previous drawings are informal. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

# Allowable Subject Matter

- 3. Claims 2-36 are allowed.
- 4. The following is an examiner's statement of reasons for allowance:

Application/Control Number: 10/043,722

Art Unit: 2685

Regarding claims 2, 14, 17, 21, 28, 32, the prior art of record disclose numerous image-inject mixers for use in a communication transceiver having first and second mixers serially coupled in the I path, third and fourth mixers serially coupled in the Q path, and first and second tunable local oscillators providing first and second local oscillator signals in-phase, quadrature with one another to the mixers, wherein the phase shifted 90o between the I an Q paths and wherein the first and second tunable LO having different step sizes.

The prior art of record does not specifically disclose the frequency of the first LO signal is the first step size (in Hz) times N, the frequency of the second LO signal is the second step size times M, and I times M is equal to N +/-1, where N, M, I are integers.

Regarding claims 3-13,15-16, 18-20, 22-27, 29-31, 33-36, these claims are allowed as being dependent upon dependent claims that have been allowed.

## Conclusion

- 5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- 6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is

Application/Control Number: 10/043,722

Art Unit: 2685

(571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

600 Dulany, Alexandria, VA 22314

Or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Hand-delivered response should be brought to Knox building, 501 Dulany, Alexandria, VA.

Simon Nguyen

April 14, 2005 SIMON NGUYEN PRIMARY EXAMINER

Simon Mynyen